Response with RCE Attorney Docket Number: 36992.00106

(previously 31192.03654)

#### REMARKS

Claims 1-18, 28 and 32 are pending in the above-identified patent application since the application was last examined and these claims stand rejected. Applicants respectfully request that the Examiner consider the new grounds for withdrawal of the rejection of these claims provided herein.

## Rejection of Claims under 35 U.S.C. 103(a) over Belden et al and Garcia i.v.o. and Anupam et al.

In the Final Office Action, page 2, the Examiner rejected claims 1, 3-10 and 12-17 under 35 U.S.C. § 103(a) is being unpatentable over (Published European Patent Publication No. 0-388-162-A2 to Belden et al. ("Belden") and U.S. Patent No. 6,272,474 to Garcia ("Garcia") in view of U.S. Patent No. 5,966,139 to Anupam et al. ("Anupam").

Applicants disagree with the Examiner and traverse such rejection. Additionally, the Applicants respectfully request that the Examiner consider the new grounds for withdrawal of the rejection provided herein, and agree to timely withdraw the rejection upon filing of the RCE included herein.

Specific embodiments of the invention satisfy the object of making a user aware of the situation corresponding to each transaction in an easily accessible fashion. Claim 1 is representative:

- "1. A method for displaying transactional information regarding the buying and selling of items in a system where orders comprise a bid type or an offer type, and an order is generated for a quantity of items at a specific value, the method comprising:
  - displaying a plurality of bid icons, each corresponding to a bid for a quantity of items, each bid icon at a location along a first axis of values corresponding to the value of the bid, including bids having different values; and
  - displaying a plurality of offer icons, each corresponding to an offer type order for a quantity of items, each offer icon at a location along the first axis of values corresponding to the value of the offer, including offers having different values."

Independent claim 1 distinguishes over the asserted combination at least by reciting any one or more of, "a plurality of bid icons", "each corresponding to a bid for a quantity of items," "each bid icon at a location along a first axis of values corresponding to the value of the bid," and "including bids having different values" and "a plurality of offer icons", "each corresponding to an offer type order for a quantity of items", "each offer icon at a location along the first axis of values corresponding to the value of the offer" and "including offers having different values." The embodiment of claim 1 includes icons corresponding to bids and icons corresponding to offers, these icons including a quantity of items and a value of transactions.

The examiner argues that Belden teaches a user-interface that shows trading information including value and quantity.

Belden, however, fails to teach, suggest or render obvious the embodiment recited by claim 1. Belden, for example, provides icons that represent positions taken by individual traders. In Fig.2b, Belden provides an icon 205-2 that shows a trader named "DAS" having a buy order and an icon 205-3 that shows trader "PA" having a sell order. Further, the icon 205-2 shows the buy order's quantity is 50 and the icon 205-3 shows the sell order's quantity is 25. (col. 14, lines 35-40) Fig. 2b illustrates icons 205-2 and 205-3 arranged in a trading pit layout on a display screen. Belden fails to teach, nor even suggest, an area on the display screen for providing a first axis of values, as recited in claim 1.

To the contrary, Belden instead provides icons that don't show the value associated with a transaction in the underlying commodity. Belden's "DAS" and "PA" icons, 205-2 and 205-3 represent individual traders. (col. 14, lines 50-55). Rather, Belden's icons carry an indication of quantity of the underlying commodity available for trade. (col. 14, lines 35 - 43). Belden's icons fail, however, to indicate a value (i.e., an offer or bid price, for example) corresponding to Belden's "DAS" and "PA" icons 205-2 and 205-3. Furthermore, Belden actually teaches away, showing the contrary and conflicting method of providing quantities for value shown by devices other than the icons. In Fig.2 of Belden, for example, the value is shown in area 205-6 on a "pit price display". (col. 15, lines 44 - 46). In fact, Belden goes so far as to eliminate display of orders in the trading pit area of the display if the orders are for prices other than the market price. (col. 17, line 56 – col. 18, line 2). Accordingly, Belden fails to make information relating to value, as well as the quantity, for an offer easily available to the user.

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Belden also fails to teach, suggest or otherwise render obvious and further teaches away from independent claim 28. More specifically, Belden provides a conventional order entry methodology in which the user enters a quantity of the underlying commodity, an identifier of a trader selling the commodity and presses a buy key or, for a trader buying the commodity, a sell key. (col. 18, lines 57 – col. 19, line 14) This directly conflicts with claim 28 at least with regard to "moving an order token to a user specified location with respect to a value axis and a quantity axis which corresponds to the desired value and quantity for the order." Belden's method provides no axis. Further, in Belden, there is no notion of moving a token to a particular location to initiate a transaction.

Belden also fails to teach, suggest or otherwise render obvious and further teaches away from independent claim 32. More specifically, Belden fails to provide, teach or even suggest the "<u>determining for each trader</u>, <u>an activity level</u>" and "displaying for each trader a token representing the trader at a location in the trading pit <u>which corresponds to the activity level of</u> the trader."

Thus, Belden cannot render the embodiments of claims 1, 28 and 32 obvious. Belden further cannot be combined with any other references with regard to rendering the recited embodiments obvious, since to do so would be "undesirable" according to Belden's teachings and would require a very substantial change to Belden's principle of operation (see MPEP § 2143.01).

The remaining claims depend from claims 1, 28 and 32 and are patentable over Belden for at least the same reasons that claims 1, 28 and 32 are patentable over Belden, both alone and in combination with the other cited references.

It is therefore respectfully requested that Belden be withdrawn from further consideration as a reference.

It is also requested that Garcia should be withdrawn from further consideration as a reference. Garcia first teaches a technique for visualizing data stored in a data store to produce a bar graph (col. 1, lines 10-15; col. 2, lines 33 - 40) and not the axis of values recited in claim 1 as argued by the Examiner. Garcia further fails to teach, suggest or otherwise render obvious claim1 with regard to the deficiencies of Belden.

Rather, Garcia teaches value and quantity that are shown separately. In Fig. 1 of Garcia, for example, icon 40 shows a value, a set of prices for XYZ stock (col. 5, lines 22 - 23), however, Garcia's icon 40 does not provide an indication of quantity. Furthermore, Garcia actually teaches away, showing the contrary and conflicting method of providing indication of quantity in bar graph indications along the bottom edge of the display region. (Fig. 1, col. 1, lines 30 - 31). Accordingly, Garcia doesn't disclose an icon showing both of value and quantity. Further, Garcia fails to teach distinct bid icons and offer icons. Rather, in Garcia's method, a single rectangle shaped icon 42 indicates a trading range of prices for a 10-minute interval. (col. 26 - 29) Thus, Garcia actually teaches away from the embodiment of claim 1, in which offer icons and bid icons are distinct.

Garcia likewise fails to teach the method recited in claim 28, at least with regard to "<u>moving an order token</u> to a user specified location with respect to <u>a value axis and a quantity axis</u> which <u>corresponds to the desired value and quantity for the order</u>." Garcia fails to teach, show, or even suggest providing any capability to receive input representing a trade from the user by moving an order token.

Garcia also fails to teach, suggest or otherwise render obvious and further teaches away from independent claim 32. More specifically, Garcia fails to provide, teach or even suggest the "<u>determining for each trader</u>, <u>an activity level</u>" and "displaying for each trader a token representing the trader at a location in the trading pit <u>which corresponds to the activity level of</u> the trader."

Thus, Garcia cannot render the embodiments of claims 1, 28 or 32 obvious. Garcia further cannot be combined with any other references with regard to rendering the recited embodiment obvious, since to do so would be "undesirable" according to Garcia's teachings and would require a very substantial change to Garcia's principle of operation (see MPEP § 2143.01).

The remaining claims depend from claims 1, 28 and 32 and are patentable over Garcia for at least the same reasons that claims 1, 28 and 32 are patentable over Garcia, both alone and in combination with the other cited references.

It is therefore respectfully requested that Garcia be withdrawn from further consideration as a reference.

Anupam also fails to teach, suggest or otherwise render obvious claims 1, 28 and 32 with regard to the deficiencies of Belden and Garcia, and further teaches away from the embodiments of claims 1, 28 and 32. The examiner argues that Anupam et al teaches an axis of the value and an icon corresponding to the axis of the value. Anupam teaches a method for visualizing relatively large amounts of data in a display using mapping and segmenting techniques. (Abstract, col. 4, lines 49 – 59, col. 6, lines 10 - 22) Regarding claim 1, Anupam likewise fails to teach, suggest or otherwise render obvious at least showing of transaction information in the form of bid icons and offer icons. Furthermore, Anupam actually teaches away by using a conventional bar graph to display information, rather than the bid icons and offer icons claimed 1. Further, Anupam does not disclose icons indicating value and quantity for an item of the underlying commodity. In Figs. 3 and 4, for example, Anupam's illustration of a value, in this case high and low prices for a "node" are depicted in tabular form, rather than as bid and offer icons. Thus, Anupam actually teaches away from the embodiment of claim 1, in which offer icons and bid icons are used to display value and quantity information.

Anupam likewise fails to teach the method recited in claim 28, at least with regard to "<u>moving an order token</u> to a user specified location with respect to <u>a value axis and a quantity axis</u> which <u>corresponds to the desired value and quantity for the order</u>." Anupam fails to teach, show, or even suggest providing any capability to receive input representing a trade from the user by moving an order token.

Anupam also fails to teach, suggest or otherwise render obvious and further teaches away from independent claim 32. More specifically, Anupam fails to provide, teach or even suggest the "<u>determining for each trader</u>, <u>an activity level</u>" and "displaying for each trader a token representing the trader at a location in the trading pit <u>which corresponds to the activity level of the trader</u>."

Thus, Anupam cannot render the embodiments of claims 1, 28 and 32 obvious. Anupam further cannot be combined with any other references with regard to rendering the recited embodiment obvious, since to do so would be "undesirable" according to Anupam's teachings and would require a very substantial change to Anupam's principle of operation (see MPEP § 2143.01).

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The remaining claims depend from claims 1, 28 and 32 and are patentable over Anupam for at least the same reasons that claims 1, 28 and 32 are patentable over Anupam, both alone and in combination with the other cited references.

It is therefore respectfully requested that Anupam be withdrawn from further consideration as a reference.

Belden describes an apparatus for market trading designed to simulate the trading environment of a trading pit. (Abstract, col. 17, line 45). Garcia describes a method for visualizing historical information from trades over a 10-minute interval. (col. 26 - 29). Anupam describes a method for visualizing relatively large amounts of data in a display using mapping and segmenting techniques. (Abstract, col. 4, lines 49 – 59, col. 6, lines 10 - 22) There is no indication in any of Belden et al, Garcia, and Anupam et al to be combined with one another. Moreover, since Belden describes a system that must react fast enough to show the state of the market for a trader to make buy and sell decisions, while, Anupam and Garcia describe methods targeted to data mining of historical information, it would appear difficult for an ordinary artisan to make such a combination.

Belden et al, Garcia, and Anupam et al. do not render the claimed embodiments of the present invention obvious for at least these reasons.

Withdrawal of the rejection is therefore respectfully requested.

# Rejection of Claims under 35 U.S.C. 103(a) over Belden et al i.v.o. Garcia and further i.v.o. Sacerdoti et al.

In the Final Office Action, page 5, the Examiner rejected claim 28 under 35 U.S.C. § 103(a) asserting that claim 28 is unpatentable over Belden in view of Garcia further in view of U.S. Patent No. 6,188,403 to Sacerdoti et al. ("Sacerdoti").

Applicants disagree with the Examiner and traverse such rejection. Additionally, the Applicants respectfully request that the Examiner consider the new grounds for withdrawal of the rejection provided herein, and agree to timely withdraw the rejection upon filing of the RCE included herein.

Sacerdoti also fails to teach, suggest or otherwise render obvious claim 28 with regard to the deficiencies of Belden and Garcia, and further teaches away from the embodiments of claim 28. Sacerdoti describes a 3-dimensional graphics generation and display application that can provide visual display of information retrieved from a database. (Abstract) In particular, Sacerdoti fails to teach the method recited in claim 28, at least with regard to "moving an order token to a user specified location with respect to a value axis and a quantity axis which corresponds to the desired value and quantity for the order." Sacerdoti fails to teach, show, or even suggest providing any capability to receive input representing a trade from the user by moving an order token.

Thus, Sacerdoti cannot render the embodiments of claim 28 obvious. Sacerdoti further cannot be combined with any other references with regard to rendering the recited embodiment obvious, since to do so would be "undesirable" according to Sacerdoti's teachings and would require a very substantial change to Sacerdoti's principle of operation (see MPEP § 2143.01).

It is therefore respectfully requested that Sacerdoti be withdrawn from further consideration as a reference.

Withdrawal of the rejection is therefore respectfully requested.

# Rejection of Claims under 35 U.S.C. 103(a) over Belden et al i.v.o. Garcia and further i.v.o. Schott

In the Final Office Action, page 6, the Examiner rejected claim 2 under 35 U.S.C. § 103(a) asserting that claim 2 is unpatentable over Belden in view of Garcia further in view of U.S. Patent No. 5,619,631 to Schott ("Schott").

Applicants disagree with the Examiner and traverse such rejection. Additionally, the Applicants respectfully request that the Examiner consider the new grounds for withdrawal of the rejection provided herein, and agree to timely withdraw the rejection upon filing of the RCE included herein.

Schott also fails to teach, suggest or otherwise render obvious claim 2 with regard to the deficiencies of Belden and Garcia, and further teaches away from the embodiments of claim 2. Schott describes a dynamically created pie chart generation and display application that can provide visual display of underlying tabularized information. (Abstract) In particular, Schott

fails to teach the method recited in claim 2, at least with regard to "providing an order token whose size is adjustable by the user to reflect the quantity for the order." Schott fails to teach, show, or even suggest providing an order token with an adjustable size that reflects a quantity of an order.

Thus, Schott cannot render the embodiments of claim 2 obvious. Schott further cannot be combined with any other references with regard to rendering the recited embodiment obvious, since to do so would be "undesirable" according to Schott's teachings and would require a very substantial change to Schott's principle of operation (see MPEP § 2143.01).

It is therefore respectfully requested that Schott be withdrawn from further consideration as a reference.

Withdrawal of the rejection is therefore respectfully requested.

# Rejection of Claims under 35 U.S.C. 103(a) over Belden et al i.v.o. Garcia and further i.v.o. Bernstein et al.

In the Final Office Action, page 7, the Examiner rejected claim 32 under 35 U.S.C. § 103(a) asserting that claim 32 is unpatentable over Belden in view of Garcia further in view of publication by Bernstein ("Bernstein").

Applicants disagree with the Examiner and traverse such rejection. Additionally, the Applicants respectfully request that the Examiner consider the new grounds for withdrawal of the rejection provided herein, and agree to timely withdraw the rejection upon filing of the RCE included herein.

Bernstein also fails to teach, suggest or otherwise render obvious claim 32 with regard to the deficiencies of Belden and Garcia, and further teaches away from the embodiments of claim 32. Bernstein describes a conventional trading pit. In particular, Bernstein fails to teach the "determining for each trader, an activity level" and "displaying for each trader a token representing the trader at a location in the trading pit which corresponds to the activity level of the trader."

Thus, Bernstein cannot render the embodiments of claim 32 obvious. Bernstein further cannot be combined with any other references with regard to rendering the recited embodiment

obvious, since to do so would be "undesirable" according to Bernstein's teachings and would require a very substantial change to Bernstein's principle of operation (see MPEP § 2143.01).

It is therefore respectfully requested that Bernstein be withdrawn from further consideration as a reference.

Withdrawal of the rejection is therefore respectfully requested.

## Rejection of Claims under 35 U.S.C. 103(a) over Belden et al i.v.o. Garcia and further i.v.o. Bay, Jr.

In the Final Office Action, page 7, the Examiner rejected claims 11 and 18 under 35 U.S.C. § 103(a) asserting that claims 11 and 18 are unpatentable over Belden in view of Garcia further in view of U.S. Patent No. 5,347,452 to Bay, Jr. ("Bay").

Applicants disagree with the Examiner and traverse such rejection. Additionally, the Applicants respectfully request that the Examiner consider the new grounds for withdrawal of the rejection provided herein, and agree to timely withdraw the rejection upon filing of the RCE included herein.

Bay also fails to teach, suggest or otherwise render obvious claims 11 and 18 with regard to the deficiencies of Belden and Garcia, and further teaches away from the embodiments of claims 11 and 18. Bay describes a conventional display of market volume for various trading days as a bar chart. In particular, Bay fails to teach the "displaying an order icon having an edge which is angled toward the axis of values" of claim 11. Bay's bar chart does not show order icons having an edge angled toward the axis of values. Further, Bay fails to teach the "generating a second axis, perpendicular to the first axis, representing time; generating a third axis, perpendicular to the second axis, representing value; and displaying a historical chart representing values of the item responsive to time and value with respect to the second and third axes" of claim 18. Rather, the levels in Figs. 1, 1a and 2 appear to be levels with respect to the graphed volume information. Further, Bay fails to disclose second and third axes that are perpendicular to the first axis.

Thus, Bay cannot render the embodiments of claims 11 and 18 obvious. Bay further cannot be combined with any other references with regard to rendering the recited embodiment

obvious, since to do so would be "undesirable" according to Bay's teachings and would require a very substantial change to Bay's principle of operation (see MPEP § 2143.01).

It is therefore respectfully requested that Bay be withdrawn from further consideration as a reference.

Withdrawal of the rejection is therefore respectfully requested.

Therefore, for at least the foregoing reasons, Applicants submit that claims 1-18, 28 and 32 are clearly patentable over the individual and combined cited references. Applicants further request reconsideration and withdrawal of the above rejections. Early allowance of all pending claims of the instant application is respectfully solicited.

If for any reason an insufficient fee has been paid, the Examiner is hereby authorized to charge the insufficiency to Deposit Account No. <u>05-0150</u>. If the Examiner has any questions or needs any additional information, the Examiner is invited to telephone the undersigned attorney at 650-843-3355.

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